

March 8, 2017

TO: Mayor and Members of Council

FROM: Harry Black, City Manager

SUBJECT: Streetcar Warranty Work

In late October 2016, concrete spalling around two streetcar track drains was discovered at the intersections of Walnut Street between Court and 9th Streets. This spalling led to the grates over the track drains coming loose and a temporary repair filling the drain boxes with cold patch asphalt was implemented. After inspection, the City determined that a warranty repair by the streetcar construction contractor, Messer Prus Delta Railroad JV (MPD), was necessary and requested a procedure to do so.

The City Administration discussed this issue as part of a regular streetcar progress presentation to the Major Transportation & Regional Cooperation Committee on November 8, 2016.

MPD submitted a repair procedure calling for a sawcut and full depth removal of the concrete track slab at each location. The resulting hole at each location would be approximately 5 feet long. Rails would remain in place over the hole. MPD would then re-pour the concrete track slab in each area to fix the problem.

At present this issue does not pose any immediate danger, but requires repair. These repairs could not be made during the winter months because concrete work needs to be performed in a certain temperature range. This makes spring the ideal time to perform these repairs.

MPD has offered four potential scenarios for performing the work. Each scenario comes with different levels of risk and impact to streetcar operations. A specific schedule would be developed once a preferred scenario is determined. All options would involve some level of lane closures on Walnut between Court and 9th Street to perform the work, including at least 2-4 days during which automobile traffic will be restricted to allow the newly replaced concrete to cure. In addition, the downtown noise ordinance will need to be waived to allow work to take place at night.

Below you will find four options that have been discussed. Although Options 2, 3 & 4 are being shared, neither option is considered ideal in that all would adversely impact the City's warranty guarantee, potentially exposing the City to unnecessary risk.

The City Administration and the City's outside consultants favor option Number 1, primarily because it will cause less traffic disruption and is considered safer.

However, The Administration seeks guidance from City Council prior to MPD undertaking this work.

Option 1:

Option 1 assumes work is permitted to occur 24 hours per day and would require a duration of approximately four days. Two days would be required to perform demolition of the existing concrete and two days are required to pour and cure the new concrete. During this time, no vehicle traffic of any kind, including streetcar traffic, would be permitted on the track. Therefore, streetcar service in the downtown loop would be halted for approximately four days. The work once completed will remain under warranty for two years.

Option 2:

Option 2 assumes work would take place over approximately five days, with demolition work occurring during nightly closures over Days 1-3. Option 2 also assumes the streetcar will be permitted to operate during the day with flaggers detouring other vehicles. New concrete pour and cure would take place over day 4-5.

Two additional options consider the possibility of running streetcars only over the newly poured concrete trackslab during the two-day concrete cure period. This option carries significant risk as the contractor has expressed the need to keep trains off the newly poured concrete until it has cured and that they would otherwise not provide warranty for the repair work should the problem reemerge.

Option 3:

Option 3 is the same as Option 2, except streetcars only would be permitted to run over the newly poured concrete during the two-day cure period. This would result in no shutdown of streetcar service, however, the contractor has stated that they will not provide warranty for the work in this scenario.

Option 4:

Option 4 is the same as Option 1, except streetcars only would be permitted to run over the newly poured concrete during the two-day cure period. This would result in a two-day shutdown of streetcar service during the demolition work. However, the contractor has stated that they will not provide warranty for the work in this scenario.

Guiding the Decision-Making Process

Beyond the construction process itself, the City must be mindful of a range of other topics while making this decision. These issues include:

- **Safety** – Shutting down the site to car and train traffic creates a safer environment for workers
- **Maintenance of Traffic footprint and duration** – The different duration of each option in turn means that traffic along Walnut will be affected for different lengths of time. Depending on the Option preferred, it is possible that the footprint for lane closures could be different as well.

- **Noise** – in any scenario, there will be jackhammering necessary to remove old concrete. Therefore, any option requires a waiver to Downtown noise regulations from the City Engineer.
- **Flagging** – Running trains over the worksite as considered in Option 2 may be possible, but automobile traffic is not. Therefore, a flagger needs to direct trains through the worksite and keep cars off it. This could add safety risk for workers and potential confusion for drivers that would be minimized under the shutdown considered in Option 1.
- **Timing** – The project team's goal thus far has been to complete this work prior to Opening Day. Delays in making a decision would likely push out to sometime after Opening Day, which conflicts with other events and activities downtown.

Conclusion

As stated, Option 1 is the City Administration's preferred option, however given the impact on the general public and interest in the project, guidance is being sought from City Council before proceeding.

The Administration is providing this report and will be present at the special Transportation Committee scheduled for March 8 to discuss and answer any additional questions.